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## TXN - Q2 2017 Texas Instruments Inc Earnings Call

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**OVERVIEW:**

Co. reported 2Q17 net income of $1.06b or $1.03 per share. Expects 3Q17 revenue to be $3.74-4.06b and EPS to be $1.04-1.18.

## CORPORATE PARTICIPANTS

**Dave Pahl** *Texas Instruments Incorporated - Head of IR and VP*

**Rafael R. Lizardi** *Texas Instruments Incorporated - CFO, CAO and SVP*

## CONFERENCE CALL PARTICIPANTS

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**Ambrish Srivastava** *BMO Capital Markets Equity Research - MD of Semiconductor Research and Senior Research Analyst*

**Amit Jawaharlaz Daryanani** *RBC Capital Markets, LLC, Research Division - Analyst*

**Christopher Brett Danely** *Citigroup Inc, Research Division - MD*

**Craig Andrew Ellis** *B. Riley & Co., LLC, Research Division - Senior MD & Director of Research*

**Harlan Sur** *JP Morgan Chase & Co, Research Division - Senior Analyst*

**John William Pitzer** *Credit Suisse AG, Research Division - MD, Global Technology Strategist and Global Technology Sector Head*

**Kanghui Ong** *Deutsche Bank AG, Research Division - Research Associate*

**William Shalom Stein** *SunTrust Robinson Humphrey, Inc., Research Division - MD*

## PRESENTATION

**Operator**

Good day, and welcome to the Texas Instruments Second Quarter 2017 Earnings Release Conference Call. Today's conference is being recorded. At this time, I would like to turn the conference over to Dave Pahl. Please go ahead, sir.

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Good afternoon, and thank you for joining our second quarter '17 earnings conference call. Rafael Lizardi, TI's Chief Financial Officer, is with me today. For any of you who missed the release, you can find it on our website at ti.com/ir. This call is being broadcast live over the web, and can be accessed through our website. A replay will be available through the web. This call will include forward-looking statements that involve risks and uncertainties that could cause TI's results to differ materially from management's current expectations. We encourage you to review the notice regarding forward-looking statements contained in the earnings release published today as well as TI's most recent SEC filings for a more complete description.

I'll start with a quick summary of our financial results. Revenue in the second quarter increased 13% from a year ago. Demand for our products continued to be strong in the automotive market and continued to strengthen in the industrial market. In our core businesses, Analog revenue grew 18%, and Embedded Processing revenue grew 15% compared with the same quarter a year ago. Operating margin increased in both businesses. Earnings per share were $1.03.

With that backdrop, I'll now provide details on our performance, which we believe continues to be representative of the ongoing strength of TI's business model.

In the second quarter, our cash flow from operations was $917 million. We believe that free cash flow growth, especially on a per share basis, is most important to maximizing shareholder value in the long term. Free cash flow for the trailing 12-month period was $4.0 billion, and free cash flow margin was 28.5% of revenue. We continue to benefit from our improved product portfolio that is long-lived and diverse and the efficiencies of our manufacturing strategy, the latter of which includes our growing 300-millimeter Analog output.

We believe that free cash flow will only be valued if it is productively invested in the business or returned to owners. For the trailing 12-month period, we returned $4.1 billion of cash to owners through a combination of dividends and stock repurchases.

From a year ago, Analog revenue increased 18%, primarily due to growth in Power and Signal Chain, each of which grew about the same amount. High Volume also grew. Embedded Processing revenue increased by 15% from a year ago due to growth in both product lines, Processors and Connected Microcontrollers, by about the same amount. In our Other segment, revenue declined $60 million from a year ago, primarily due to custom ASIC and the move of royalties to OI&E beginning in the first quarter of 2017.

Now I'll provide some insight into this quarter's revenue performance by end markets versus a year ago. Automotive demand remained strong, with most sectors growing double digit. Industrial demand continued to strengthen, with broad-based growth as most sectors grew double digit. Personal electronics grew, while results varied by customer. Lastly, communications equipment grew, and enterprise systems was about even.

We continue to focus our strategy on the industrial and automotive markets, which are the end markets where we've been allocating our capital and driving initiatives. This is based on our belief that industrial and automotive will be the fastest-growing semiconductor markets due to their increasing semiconductor content and that they'll provide diversity and longevity of product, which translate to a high turnover value of the portfolio.

Rafael will now review profitability, capital management and our outlook. Rafael?

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**Rafael R. Lizardi** - *Texas Instruments Incorporated - CFO, CAO and SVP*

Thanks, Dave, and good afternoon, everyone.

Gross profit in the quarter was $2.37 billion or 64.3% of revenue. From a year ago, the gross profit increased primarily due to higher revenue. Gross profit margin increased 300 basis points.

Operating expenses in the quarter were $812 million, and on a trailing 12-month basis, they were 22.3% of revenue, which is in the lower half of our model. Over the last 12 months, we have invested $1.4 billion in R&D, an important element of our capital allocation.

Acquisition charges were $79 million, all of which was the ongoing amortization of intangibles, which is a noncash expense.

Operating profit was $1.48 billion or 40.1% of revenue. Operating profit was up 31% from the year-ago quarter. Operating margin for Analog was 44.7%, up from 38.2% a year ago. And for Embedded Processing, was 31.2%, up from 25.4% a year ago. Our focused investments on the best sustainable growth opportunities with differentiated positions enabled both businesses to continue to contribute nicely to free cash flow growth.

Net income in the second quarter was $1.06 billion, or $1.03 per share, which included a $28 million discrete tax benefit, about what we expected.

Let me now comment on our capital management results, starting with our cash generation. Cash flow from operations was $917 million in the quarter. You will see that while net income was significantly higher than a year ago, that increase was more than offset by a higher tax payment that was driven by our outlook for higher profitability this year.

Inventory days were 133, even with a year ago and within our range.

Capital expenditures were $151 million in the quarter.

On a trailing 12-month basis, cash flow from operations was $4.56 billion. Trailing 12-month capital expenditures were $527 million or about 4% of revenue. As a reminder, our long-term expectation for capital expenditures is about 4% of revenue. Free cash flow for the past 12 months was $4.04 billion or 28.5% of revenue. Our cash flow reflects the strength of our business model. As we have said, we believe free cash flow growth, especially on a per share basis, is most important to maximizing shareholder value in the long term and will be valued only if it is productively invested in the business or returned to owners.

In the second quarter, we paid $498 million in dividends and repurchased $650 million of our stock for a total return of $1.15 billion. Total cash returned to owners in the past 12 months was $4.05 billion. Over the last 12 months, we paid $1.88 billion in dividends. Outstanding share count was reduced by 1.2% over the past 12 months, and has been reduced by 42% since the end of 2004, when we initiated a program designed to reduce our share count. This combined returns of dividends and repurchases demonstrate our confidence in our business model and commitment to return excess cash to owners.

In the quarter, we retired $375 million of debt, and year-to-date, we have retired $625 million. In addition, we issued $600 million of debt in 2 tranches: $300 million each in 4-year and 7-year notes. This leaves total debt of $3.6 billion with a weighted average coupon rate of 1.93%.

Our cash management and tax practices are fundamental to our commitment to return cash. We ended the quarter with $2.98 billion of cash and short-term investments, with our U.S. entity owning about 80% of our cash. This onshore cash is readily available for multiple uses.

Turning to our outlook, for the third quarter, we expect revenue in the range of $3.74 billion to $4.06 billion and earnings per share to be in the range of $1.04 to $1.18, which includes an estimated $20 million discrete tax benefit.

Our annual operating tax rate for 2017 is now about 31% compared with our prior expectation of about 30% due to our outlook for higher profitability this year. This annual operating tax rate assume no discrete tax -- no discrete items and is what you will need to use as the starting point for your longer-term model. Next, we are assuming discrete tax items of about $20 million and $10 million in the third and fourth quarters of 2017, respectively. Therefore, the effective tax rate, which includes discrete tax items, translate to about 29% and 30% in the third and fourth quarters, respectively. These are the quarterly effective tax rates you should use for your 2017 models.

I will also remind analysts who are beginning to work with 2018 models that we would expect the discrete tax benefit in 1Q '18 to be higher than what we are projecting for the third and fourth quarters of 2017, but lower than 1Q '17. To estimate a 2018 annual operating tax rate, start with 2017 PBT tax of 31% and apply a 35% tax rate to any incremental profit. Then, model discrete tax benefits by quarter, knowing that first quarter is expected to be higher than the others.

Now to wrap up. We remain focused on growing free cash flow per share over the long term and investing to strengthen our competitive advantages. We believe our second-quarter results continue to demonstrate our progress.

With that, let me turn it back to Dave.

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Thanks, Rafael. Operator, you can now open up the lines for questions. (Operator Instructions) Operator?

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## QUESTIONS AND ANSWERS

**Operator**

(Operator Instructions) We'll take our first question from Ross Seymore with Deutsche Bank.

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**Kanghui Ong** - *Deutsche Bank AG, Research Division - Research Associate*

This is Jeriel Ong on behalf of Ross. Just one question from me. You detailed how your end markets changed year-on-year. Could you provide some details on how you estimate they change quarter-on-quarter?

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Sure, Jeriel. For automotive, basically, it increased sequentially with all sectors growing. Industrial, again, we saw a very broad-based growth and -- across the sectors. And overall, it also increased. Personal electronics increased with most sectors growing. Communications equipment was about even sequentially, and enterprise systems also grew. Do you have a follow-on?

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**Kanghui Ong** - *Deutsche Bank AG, Research Division - Research Associate*

Yes, sure. So you talked in the past about R&D potentially being a little bit elevated near term. Now you guys came in slightly below our model for the quarter. How much longer could R&D be elevated in order to invest in the business?

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**Rafael R. Lizardi** - *Texas Instruments Incorporated - CFO, CAO and SVP*

I'll take that. First, I would point out that -- I know you're asking about R&D. But let me address it from an OpEx standpoint. We look at OpEx as a model, and our model is 20 -- to be between 20% and 30% of revenue and in stable times to be at the lower half of that. In fact, that's where we've been in the last 2.5 years or so, 23% to 22%. Now we're running at 22% of revenue. And again, in stable times, we think we can operate there. Now inside of that, there -- both in R&D and actually in SG&A, we have various investments that are strengthening our competitive advantages. On the R&D front, we continue to focus on industrial and automotive to continue to broaden our portfolio. On the SG&A side, we invested on -- to increase the reach of our channels, ti.com in particular. So we are thinking that we're going to continue to make those investments to strengthen the company.

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**Operator**

We'll go now to Vivek Arya with Bank of America Merrill Lynch.

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**Adam Gonzalez** - *BofA Merrill Lynch, Research Division - Research Analyst*

This is Adam Gonzalez on for Vivek. First question, maybe could you contrast auto's demand now versus, say, maybe 6 months ago? And industrial is an even larger market for you guys, and auto tends to get all the attention. Just wondering, do they correlate at all? Can industrial offset any potential demand fluctuations in autos? And then, I have a follow-up.

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Sure, yes. So the strength that we've seen inside of automotive is something that we've seen for, probably, greater than 4 years now. So I would attribute that to our early focus on that market, the breadth of our technologies and really just the overall diversity of our position. So we've got 5 sectors inside of automotive that we're investing in, so that includes infotainment; safety systems; ADAS or advanced driver assist systems; PowerTrain, which include EV and hybrid; and body electronics and lighting. So we're seeing good growth across those sectors that sit inside of the automotive market. And really also diversity across subsystem suppliers, across car companies, across geographical regions. So we feel really good about that.

Very similar story inside of industrial, very broad-based growth. I won't speak to whether they'll be connected through economic cycles or not. But both do have increasing content. So I'd be a little cautious to think that, that increasing content could offset a correction that we may see in a near term in any 1 given quarter or even in any 1 given year. But we believe that there will be more content there over the longer term when you're looking 5 and 10 years, and that's why our investments are higher there. Do you have a follow-on?

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**Adam Gonzalez** - *BofA Merrill Lynch, Research Division - Research Analyst*

Yes. My second question is more on your free cash flow growth. I'm just curious why -- if you're looking at it on a trailing 12-month basis, why free cash flow hasn't grown year-on-year despite your core Analog and Embedded businesses growing in the low double-digit range. And what's the catalyst for maybe getting that back to the higher single digit, maybe low double-digit range?

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**Rafael R. Lizardi** - *Texas Instruments Incorporated - CFO, CAO and SVP*

Yes. Thanks for this, Rafael. Thanks for a chance to clarify that. First, in any given quarter, you're going to have puts and takes on free cash flow, on any line of the P&L, but particularly on the cash flow statement. In this particular quarter and also on a trailing 12-month basis, what you see there is that we had an increased tax payment in 2Q '17 that was primarily due to our outlook for higher profitability this year.

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**Operator**

We'll take our next question from Chris Danely with Bank of America Merrill Lynch -- or excuse me, with Citigroup.

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**Christopher Brett Danely** - *Citigroup Inc, Research Division - MD*

I had a question on gross margin. So your revenue is basically back to where it was in the third -- or I guess, a little bit higher than it was than the third quarter last year, but the gross margins were 230 basis points higher. Can you just kind of give us the reasons why they're higher? And then what would be the gross margin drivers going forward?

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**Rafael R. Lizardi** - *Texas Instruments Incorporated - CFO, CAO and SVP*

Yes, sure. I'll be happy to address that. So our gross margins in the second quarter of '17 ended at 64.3%, and that was 300 basis points higher than the same quarter last year. And that's just reflects the quality of our product portfolio as we continue to focus on automotive and industrial, but also, the efficiency of our manufacturing strategy. And as you know, we are -- we have the unique advantage of having a 300-millimeter factory that at the chip level provides a 40% cost advantage. As of 2016, we had about $2.5 billion of our revenue running through 300-millimeter, and as we continue to grow the company, and in this case, Analog in particular, and that growth primarily runs through 300-millimeter, then we're going to accrue that benefit over and over and over. And it's a cumulative benefit that really yields some nice results to the gross margin line, but even more important, to the free cash flow and free cash flow per share for the owners of the company.

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Do you have a follow-on, Chris?

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**Christopher Brett Danely** - *Citigroup Inc, Research Division - MD*

Yes. Another thing that's going on out there, at least some of your competitors have talked about their lead times extending. Is that happening at all at TI?

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Chris, I described our lead times as continuing to remain stable. We do have pockets where we've got a process or package supply tightness, but we're aggressively working those. And -- but overall, our lead times continue to remain stable.

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**Operator**

We'll go next to William Stein with SunTrust.

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**William Shalom Stein** - *SunTrust Robinson Humphrey, Inc., Research Division - MD*

It's sort of a follow-up to the last one. We've heard quite a bit about shortages for complementary products to semis, in particular on the passive side. And I'm hoping to find out if TI is seeing any sort of capping of its growth opportunities because customers are certainly not going to order parts from you if they can't get a full kit from all of their suppliers. Are you seeing that dynamic play out at all?

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Yes. Well, I would say, in general, I'm not sure we could see that if it was there. But I'll just remind you that about 60% of our revenues are on consignment. So we've got no inventory of our products sitting in front of the customer's production line that they own. We may have a position that it sits on our balance sheet. And same thing with distributors. But we actually do get demand forecasts from them, and those often times will be several months out, sometimes even as far as 6 months out. And that doesn't mean that they can't change. And I'd say, for that, where we do have very good visibility, you won't see anything unusual going on inside of there, no unusual expedites or cancellations or those types of things. Do you have a follow-on?

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**William Shalom Stein** - *SunTrust Robinson Humphrey, Inc., Research Division - MD*

Yes. Maybe you could comment on order linearity through the quarter and book-to-bill?

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Sure. yes. So again, I'll make the comment that we've got 60% of our revenues on consignment. So there, we actually don't have orders or backlogs. We only see that -- those demand forecasts. So book-to-bill is less helpful inside of that. But orders, if you look through the month, they were strong overall. And they did accelerate as we went through the quarter and into the month of June, book-to-bill overall was 1.06.

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**Operator**

We'll take our next question from Harlan Sur with JPMorgan.

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**Harlan Sur** - *JP Morgan Chase & Co, Research Division - Senior Analyst*

Solid job on the quarterly execution, margin expansion and on the outlook. Clearly, macro dimensions are strong in your end markets, similar to last quarter. I'm just wondering if you could just talk about some of the demand trends from a geographic perspective. I think last quarter, you guys saw year-over-year growth in most of the geographies. Wondering if you can just provide us with some details on the June quarter.

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Sure, Harlan. Year-over-year, revenue was up in all regions, so Asia, Europe, the U.S. and Japan on a year-over-year basis. And that was true, additionally, on a sequential basis. So we saw growth very -- really across the board there. And just as a reminder, some know this well, some don't, that we track our revenue on where we ship it. So it's not where that product is ultimately consumed. So we may ship into a car manufacturer or Tier 1 car manufacturer in Europe, and that car may end up and be sold in China as an example. So really, it's not a good look through for end consumption by market. Do you have a follow-on?

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**Harlan Sur** - *JP Morgan Chase & Co, Research Division - Senior Analyst*

Yes, I do. So on Embedded, strong year-over-year growth in sales. I think you're operating profitability was up something like almost 600 basis points year-over-year. Is this mostly leverage on the OpEx as you drive revenue growth? Or are there some positive mix benefits? I'm not sure, for example, if some of your processor solutions going into automotive carry like a higher gross margin profile.

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**Rafael R. Lizardi** - *Texas Instruments Incorporated - CFO, CAO and SVP*

Well, this is Rafael. What I would tell you is that the driver -- the main driver of what you're seeing here is the revenue growth as we have over a number of years now -- excuse me, we've refocused our investments in Embedded, and now that's really paying off very nicely. They have -- Embedded has quite a bit of our investment there is in automotive and industrial, just like it is in Analog. And then, those, as we have said, those are the best markets, and that is yielding very nice results.

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**Operator**

We'll take our next question from Amit Daryanani from RBC Capital Markets.

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**Amit Jawaharlaz Daryanani** - *RBC Capital Markets, LLC, Research Division - Analyst*

I guess, 2 questions from me as well. First off, historically, you guys have always talked about this 30 to 40 basis points of share gain, I think, on an annual basis. I'm just wondering, given the inflection of R&D higher over the last several quarters now, should we start to think about share gains potentially accelerating? Or share gains happening in places where the margin profile is much richer? And when do you see those benefits starting to transfer for you guys on the revenue line?

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Well, I'll take a shot at that, and if Rafael wants to add something, he can jump in. I would just say that, as we look and allocate R&D, we're allocating those to the best projects that we can find, ones that are going to produce, get designed into the most customers, into the most markets and have longevity of revenue. And really mostly, that's about finding better opportunities to invest in than trying to just double the number of products, as an example, that we're doing. But we have found more opportunities to make investments. It's the things as our products live longer and repurposed product into adjacent markets, we found opportunities to be able to do that. So -- and I'd say, just in general, the quality of the opportunity share doesn't shift very quickly. And -- so we're not penciling in an inflection point inside of our revenue. But when we look at our competitive advantages -- and I'd just say, just as a reminder, all 4 of those working together and the investments that we're making, and that includes the manufacturing and technology, the most visible one there is the 300-millimeter advantage that we have, the broad product portfolio and just the tens of thousands of products that we've got the opportunity to sell more products to more customers, the reach of the channel market, including ti.com that Rafael had mentioned earlier, as well as our sales force, and then, just the diverse and long-lived positions, all those working together, I think, gives us confidence that in the future that we can continue to gain share in that range of 30 to 40 basis points.

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**Rafael R. Lizardi** - *Texas Instruments Incorporated - CFO, CAO and SVP*

Yes. The only thing I would add is, as you know and we talked about it quite a bit, we've been focusing on automotive and industrial for quite some time now because those are the best markets. They have the highest semiconductor content growth. And we're confident that we'll continue to have that for many years to come. So as of the end of last year, 51% of our revenue was automotive and industrial, and obviously, with the growth that we're seeing year-to-date, that number appears to be ticking up, that percentage. So as that number increases and we continue driving performance on those 2 segments, then mathematically overall, our revenue will do better.

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Amit, Do you have a follow-on?

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**Amit Jawaharlaz Daryanani** - *RBC Capital Markets, LLC, Research Division - Analyst*

I do, and hopefully I don't jinx the strength right now. But last 4 quarters, I think in a row, you guys have been pretty much behind the revenue guide that you guys initially provide. Is there a change in the way you provide guide? Have you rolled up the revenue forecast that things have actually ended up at the high end for 4 quarters in a row? Or it just happened to be the case?

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

No, it's really the latter. When we look at the out quarter again, we've got 60% of the revenue that we don't have order patterns to look at, but we can actually see the demand patterns that our customers have. And that can move in both directions pretty quickly, right? So even though we've got great visibility there, things can strengthen or weaken very quickly on us. But we do have very, very good visibility for that 60% of our revenue. And the rest of that, we look at -- we do look at the backlog. We look at order patterns. Our sales teams provide forecasts as well so we go through a bottoms-up and a tops-down approach. So the revenue guidance that we gave you for the third quarter is our best estimate of what we think we'll do.

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**Operator**

We'll take our next question from John Pitzer with Credit Suisse.

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**John William Pitzer** - *Credit Suisse AG, Research Division - MD, Global Technology Strategist and Global Technology Sector Head*

Rafael, I apologize if I missed this. But wondering if you can just talk a little bit about OpEx trends going into the September quarter. Typically, it's a seasonally down quarter for OpEx. I'm just kind of curious is that how we should be thinking about modeling it this September? Or are there some incentive or variable bonus offsets that might have be -- actually have OpEx flat or up sequentially?

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**Rafael R. Lizardi** - *Texas Instruments Incorporated - CFO, CAO and SVP*

Yes, I'll be happy to add some clarity on that. As you know, we don't guide specifically on OpEx or GPM, any line for that matter, other than revenue and EPS. But on OpEx, and I should say, on OpEx we focus on the model, the 20% to 30%, and we've been operating on the lower half of that. So we like you guys to think about it that way. I would tell you though, if we had anything unusual going on in OpEx, we would point that out second to third, and we do not. And we also don't have anything like vacation or compensation adjustments that sometimes -- or we do see fourth to first, for example, we do not have that going on in the second to third transition.

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Yes. And just to add to that. When you look at our history, we've had some restructurings in the last few third quarters that you may have seen that transition. But as Rafael stated, there's not a seasonal impact that you see inside a third quarter, typically. Do you have a follow-on, John?

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**John William Pitzer** - *Credit Suisse AG, Research Division - MD, Global Technology Strategist and Global Technology Sector Head*

Yes. Dave, I was wondering if you could just talk a little bit more about what you're seeing in the auto market. Because clearly, over the last several years, it's been one of the better growing business for semis, but there have been some sort of mix data points. SAAR is decelerating. You've seen some auto manufacturers actually cutting forecast in the back half of the year. So I guess, how do you think about kind of SAAR unit growth versus content growth? And how is the visibility there? And are you seeing things that others would have highlighted last week on their conference call?

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Yes. So the one thing that's been clear, our business has grown very strong for 4-years-plus now. So -- and that's really due to the early investments that we had made inside of this market and we continue to make. And again, we're trying to ensure that we're making those investments as broad as we can, so we're not dependent on one particular technology or one type of portion of the demand that's increasing. And clearly, the -- I think it's well known that SC content has grown faster inside of autos, and geez, if you just go down into a showroom, you can see that pretty clearly in any car today versus even just a few years ago. So we're confident that, that trend will continue. And we've also seen the announcements, like you've mentioned, that some car companies have reduced their build plan. But we certainly continue to monitor those markets overall. But we're confident in our long-term position there, and we'll continue to make those investments.

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**Operator**

We'll go now next to Ambrish Srivastava with BMO.

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**Ambrish Srivastava** - *BMO Capital Markets Equity Research - MD of Semiconductor Research and Senior Research Analyst*

Sorry about that, straddling, 2 calls, and I apologize if this has been answered already. In the reported quarter, where did the upside come versus your expectations going into the quarter?

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Yes. Ambrish, it was -- things were pretty strong, really, across the board. So we saw growth really in most markets, most geographies and even a lot of the subsectors inside of automotive and industrial.

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**Rafael R. Lizardi** - *Texas Instruments Incorporated - CFO, CAO and SVP*

I would just add, 3/4 of our growth came from industrial and automotive. So that just shows you how strong those are.

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Yes. And do you have a follow-on, Ambrish?

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**Ambrish Srivastava** - *BMO Capital Markets Equity Research - MD of Semiconductor Research and Senior Research Analyst*

Yes, I did, Dave. And this is you're kind enough always when we have this topic comes up every couple of quarters, and not surprisingly, we're in an economic expansion for a while now. Top of the cycle. You have metrics that you look at, which are cancellations, booking. And so you shared them quite frequently with us. So where are we -- where is TI's business on those metrics, Dave?

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Yes. So I would say that if you look, again, inside of distribution, our inventory there remains at about 4 weeks. It's actually down sequentially and down from 1 year ago. Our visibility in the customers' inventory is, of course, varies depending on if we're on consignment or not. So with our consigned OEMs, we're not seeing anything that's unusual there, such as expedites that would suggest that we have an issue. And of course, our visibility into inventory beyond what customers manufacture in their operations is very low overall. So again, cancellations remain low. Lead times continue to remain steady. So all of those metrics, I think, really are very similar to what we saw 90 days ago.

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**Operator**

We'll go next to Craig Ellis with B. Riley Financial.

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**Craig Andrew Ellis** - *B. Riley & Co., LLC, Research Division - Senior MD & Director of Research*

I wanted to come back on the gross margin point, so congratulations on getting to 64% in the quarter. When I look at the incremental for the quarter, it was 79%, which is above the 68% to 69% level that it had been through the last 5 or 6 quarters. Not unprecedented, but looked like a step-up. Is that something we should interpret as being more sustainable? Or were there some either mix items? Or are there lumpy 300-millimeter transition items that contributed to the atypical surge in the quarter?

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**Rafael R. Lizardi** - *Texas Instruments Incorporated - CFO, CAO and SVP*

Yes. This is Rafael. What I would tell you is that in any given quarter, the fall throughs will be a little different. In a company the size of ours, there's just a lot of puts and takes inside this big P&L. The more important thing to remember is that we have some fundamental structural drivers that are -- have increased our GPM percent, and we think are going to continue increasing our GPM percent for the foreseeable future. And those are the quality of the portfolio as we continue to focus on the best markets, automotive and industrial, and the diversity and positions -- long-lived positions that we get with those, where we invest R&D today, and we get the revenue for decades to come. And then, the other piece is a 300-millimeter Analog, as I stated earlier, that is 40% more cost-efficient than 200-millimeter. And that accrues, meaning you start in one part on that and then the next part, you start it on 300, and the third part and the fourth part and you -- next thing you know, a bigger percentage of your company is running on 300-millimeter. And it was only 30% as of 2016, the 30% of the capacity that we have on 300 was used. So we have ample room to continue growing 300-millimeter and accrue benefit to the company.

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**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Do you have a follow-on, Craig?

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**Craig Andrew Ellis** - *B. Riley & Co., LLC, Research Division - Senior MD & Director of Research*

Yes. Just regarding the end market color you provided in response to an earlier question, Dave. Comms sounds like kind of flattish quarter-on-quarter. Can you just refresh our memory in terms of where the company stands with respect to how it's looking at comms from a strategic standpoint? And where you see demand as we look around and look at 4G infrastructure investments being made globally?

**Dave Pahl** - *Texas Instruments Incorporated - Head of IR and VP*

Sure. Yes. So comms equipment is 13% of our total revenue. Wireless infrastructure will be a sector inside of that, which tends to take a lot of the comms. It's more than half of that end market by itself, so probably somewhere in the mid-single digits as a percentage of our revenue. And there, I think, when we look at incremental dollars of where we're investing, if I refer you back to our capital management call that we gave back in February, we talked about the fact that we wanted to increase incrementally dollars in both the industrial and automotive markets because that's where we believe the growth will be. With communications equipment, I would say that we've got some caveats depending on which business we're looking at. In Embedded, I'd say those investments are down versus where they were maybe 5 years ago. But on the same view, inside of Analog, they're actually up because of some of the complexity that's being developed inside of the radio. So we do believe that, that market will continue to provide great opportunities for us for a very long period of time. But we just don't believe that there's going to be significant growth. We don't know of any carriers that want to take up their CapEx over the next 5 and 10 years over a longer period of time. So thank you for that question, Craig, and thank you all for joining us tonight. A replay of this call will be available on our website. Good evening.

**Operator**

This does conclude today's conference. Thank you for your participation. You may now disconnect.